

Weber as teaching co extrusion of a dye receiving layer and a microvoided layer. In particular, the Patent Office recites as follows at page 21 of the Office Action:

... However, Weber specifically recites,: "this combination is then *coextruded* with clear unfilled polypropylene so as to have a thin skin layer on opposite surfaces of the core combination of materials (column 2, lines 40-42). This skin layer is intended to be printed upon (see column 1, lines 42-44, column 4, lines 66-68 - and note that the title of the invention is "Label Face Stock", i.e., the surface that gets printed upon). (Emphasis in original.)

Examining the text and claims of Weber reveals that the invention of Weber was a blend of polymers having excellent printability for use on a label face stock. See claim 1 and col. 1, lines 31-44. In particular, claim 1 clearly sets forth "a multilayer label film comprising a base structure comprising an oriented polypropylene film having on one side thereof a blend of (A) ... and (B) ...; and on the other side thereof an adhesive layer." Thus, the claimed structure of Weber is:

blend of (A) and (B)
oriented polypropylene film
adhesive layer

In view of the claims, one sees that col. 2, lines 9-66, discusses the oriented polypropylene film. Lines 40-42, which describe coextruding clear, unfilled polypropylene to form a skin layer on opposite sides of the core is still a discussion of the core. This is evident in reading the patent in full, wherein col. 2, line 67, through col. 3, line 19, discusses the skin layers. In particular, col. 3, lines 9-19, discusses that a skin layer adjacent the adhesive layer must sufficiently adhere to the adhesive layer. Col. 3, line 20 - col. 4, line 55, address the core of the invention, the blend of (A) and (B). The Example at col. 4, lines 66-68, cited by the Patent Office, refers to coating a LabelLyte® film on a polyethylene side of the LabelLyte® film with a blend of (A) and (B). The LabelLyte® film is described at col. 4, lines 35-46, as follows:

This coating composition [**inventive coating**] is applied to the selected base or core material. For example, a product sold by Mobil Chemical Company and identified as 140LL302 LabelLyte® can be employed. This product [**i.e., LabelLyte®**] is a 3 mil, white opaque label product consisting of a cavitated homopolymer polypropylene core with skin layers on opposite surfaces. The [**skin**] layer which is coated *with the polymer blend of the present invention* is a medium density polyethylene with a titanium dioxide filler. The opposite skin layer is a homopolymer polypropylene with a calcium carbonate filler.

Thus, the inventive coating, a polymeric blend of A and B intended to improve printability, is applied to a skin layer on a cavitated core. Referring back to col. 2, lines 40-43, it is the skin layers that can be co extruded with the cavitated core. According to col. 4, lines 46-49 and 58-65, the coating of the invention is applied to the core, which includes the skin layers, in a secondary coating process using a water-based composition. This is recognized by the Patent Office at the bottom of page 21 of the Office Action, wherein the Patent Office states "Weber also discloses coating processes (see weber, Column 4). The coating process is not incompatible with the co-extrusion process since Weber discloses both of them being performed together." The Patent Office by this statement clearly recognized Weber teaches a coating process separate from a co-extrusion, and used in conjunction therewith.

As described, Weber comprises a polymeric blend applied to a core containing microspheres having an adhesive layer on a side of the core opposite the polymeric blend. In contrast, the claimed invention is directed to a process of providing a pre-label receiver sheet having a film comprising an image-receiving layer *co-extruded* with a microvoided layer, wherein the *co-extruded film* is oriented. As described above, Weber does not co-extrude the image-receiving layer with a microvoided layer, Weber does not orient the image-receiving layer, and the microvoided layer of Weber is not adjacent the image-receiving layer because a skin layer is present between the core and image-receiving layer of Weber. For at least the above reasons, Weber does not teach, disclose, or suggest all the features of the claimed invention.

#### Arguments with respect to Freedman

The Patent Office asserts at page 21 of the Office Action:

Freedman further discloses that the materials and procedures used for sheet stock and sheet liner (i.e., labels) may be the same or different as that of the roll stock and roll liner, but that the principles of construction for these layers can be similar (see column 7, lines 49-54 and columns 7-9, and Figures 5 and 6, which disclose the manufacture of similar facestock without the microvoids).

The actual statement at col. 7, lines 49-54, is as follows:

... Materials and procedures used for sheet stock and sheet liner may be the same or may differ to some degree from those used for roll stock and roll liner, but the principles of the construction and

manufacture *of the liner* can be similar whether it be liner for roll stock or sheet stock. (Emphasis added)

The manufacture of facestock is actually discussed from col. 9, line 8, through col. 11, line 48, with reference to Figures 5-8. It is disclosed that the skin layer and core can be co-extruded (col. 10, line 67, through col. 11, line 3), and can be oriented (col. 11, lines 23-24). However, it is not disclosed or suggested that the core forms a microvoided layer using a void initiator. Suitable core materials are disclosed at col. 9, line 66, through col. 10, line 12, with no mention of microvoided materials.

Microvoided materials are only mentioned with reference to *liner stock*, at col. 2, line 47, through col. 5, line 8, and shown in Figs. 1 and 2. As described in col. 5, lines 9-31, discuss the advantages of a roughened liner with regard to tracking of the film during manufacture on one side, and air entrapment on the opposite, adhesive side or the core. It would be obvious to one skilled in the art of printing that a rough printing surface may create a poor printed material. If the microvoided material of the liner were substituted in the face stock, the face stock would have a roughened surface, hampering printing. In fact, Freedman discloses *attenuating* the roughness of the roll liner at col. 8, line 60, though col. 9, line 7.

Freedman does not disclose or suggest the use of a microvoided material in a pre-label sheet, wherein the microvoided material is co-extruded with an image-receiving material to form a film. The purpose of Freedman's use of microvoiding agents, to roughen a surface, teaches away from use in label stock for printing, which desirably has a smooth surface for image reception. In contrast, as set forth in Applicants' specification at page 20, lines 17-20, the microvoided layer of Applicants' invention provides compliance, resulting in better contact, and higher dye transfer efficiencies during printing. As set forth above, Freedman does not teach, disclose, or suggest all the features of the claimed invention, and does not overcome the deficiencies of Weber.

#### Arguments with Respect to Shirai

Shirai does not overcome the deficiencies of Weber and Freedman, alone or in any combination with Harrison and Oshima, discussed below. Shirai is directed to a thermal transfer image-receiving sheet for labels. As shown in Fig. 1 and described at col. 5, lines 2-4, the sheet comprises a sticker portion 2 and a release sheet portion 3.

The sticker portion 2 includes a receptor layer 4, an optional intermediate layer 5, and a substrate 6, wherein the substrate layer can be foamed. Foaming is discussed at col. 9, lines 26-32. As known to one skilled in the art, a foam has air or gas pockets, but does not include a particulate material, that is, a solid void-initiating agent. It is not disclosed or suggested that the substrate can be voided or that either the substrate or the receptor layer can be extruded. *See* col. 9, line 10 - col. 10, line 20.

#### Arguments with Respect to Harrison

Harrison does not overcome the deficiencies of Weber and Freedman, alone or in combination with any one or more of Shirai and Oshima (discussed below). Harrison discloses a thermal receiver comprising a co extruded dye image-receiving layer and thermoplastic resin with void initiating particles laminated to a support. There is no disclosure or suggestion of coating the co extruded layers with an adhesive or forming a peelable adhesive label.

#### Arguments with Respect to Oshima

Oshima does not overcome the deficiencies of Weber and Freedman, alone or in combination with any one or more of Shirai and Harrison. Oshima is directed to an image receiving sheet for thermal transfer printing having an adhesive sheet portion and a release sheet. The adhesive sheet portion can include a foamed layer (col. 4, lines 55-61), but does not teach or disclose a microvoided layer. There is no teaching or suggestion that either the foamed layer or the dye-receiving layer (col. 7, lines 15-23) can be extruded.

#### Conclusion

For at least the above reasons, none of the references, alone or in any combination, disclose or suggest all the features of the claimed invention. Reconsideration and withdrawal of each rejection under 35 U.S.C. §103(a) are in order, and are respectfully requested.

All of claims being in condition for allowance for at least the above reasons, reconsideration and prompt action in the form of a Notice of Allowance are respectfully solicited.

Should the Examiner require anything further, or have any questions, the Examiner is asked to contact Applicants' undersigned representative.

Respectfully submitted,



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**If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.**